AMENDMENTS

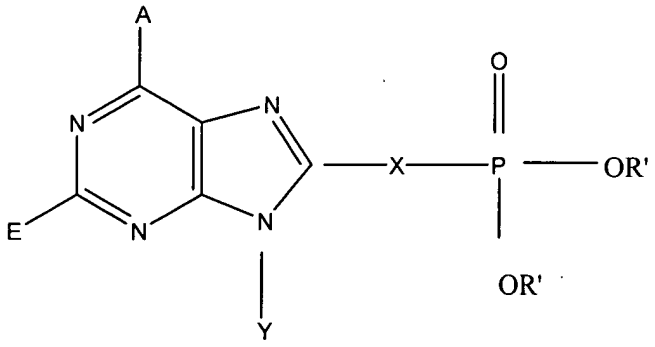
In the Specification:

Please amend the specification as follows:

at p. 122

ABSTRACT

Novel purine compounds of Formula 1, pharmaceutically acceptable prodrugs and salts thereof, ~~the following structure~~ and their use as fructose 1,6-bisphosphatase inhibitors ~~is described~~.



Formula 1

~~wherein~~

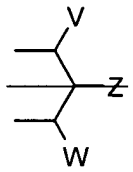
~~A is selected from the group consisting of NR^8_2, $NHSO_2R^3$, OR^5, SR^5, halo, lower alkyl, $CON(R^3)_2$, guanidino, amidino, H, and perhaloalkyl;~~

~~E is selected from the group consisting of H, halo, lower alkylthio, lower perhaloalkyl, lower alkyl, lower alkenyl, lower alkynyl, lower alkoxy, CN, and NR^7_2;~~

~~X is selected from the group consisting of -alk-NR-, alkylene, alkenylene, alkynylene, arylene, heteroarylene, -alk-NR-alk-, -alk-O-alk-, -alk-S-alk-, -alk-S-, alicyclicene, heteroalicyclicene, 1,1-dihaloalkylene, -C(O)-alk-, -NR-C(O)-NR'-, -alk-NR-C(O)-, -alk-C(O)-NR-, -Ar-alk-, and -alk-Ar-, all optionally substituted, wherein each R and R' is independently selected from H and lower alkyl, and wherein each "alk" and "Ar" is an independently selected alkylene or arylene, respectively;~~

Y is selected from the group consisting of H, alkyl, alkenyl, alkynyl, aryl, alicyclic, heteroalicyclic, aralkyl, aryloxyalkyl, alkoxyalkyl, $C(O)R^3$, $S(O)_2R^3$, $C(O)OR^3$, $CONHR^3$, NR^2_2, and OR^3, all except H are optionally substituted;

R^+ is independently selected from the group consisting of H, alkyl, aryl, heteroalicyclic where the cyclic moiety contains a carbonate or thiocarbonate, $C(R^2)_2$-aryl, -alk-aryl, $C(R^2)_2OC(O)NR^2_2$, $NR^2C(O)R^3$, $C(R^2)_2OC(O)R^3$, $C(R^2)_2OC(O)OR^3$, $C(R^2)_2OC(O)SR^3$, -alk-S-C(O)R^3, -alk-S-S-alkylhydroxy, and -alk-S-S-S-alkylhydroxy, or together R^+ and R^+ are -alk-S-S-alk- to form a cyclic group, wherein each "alk" is an independently selected alkylene, or together R^+ and R^+ are



wherein

V and W are independently selected from the group consisting of hydrogen, aryl, substituted aryl, heteroaryl, substituted heteroaryl, 1-alkenyl, 1-alkynyl, and R^9; or

together V and Z are connected via a chain of 3-5 atoms, only one of which can be a heteroatom, to form part of a cyclic group substituted with hydroxy, acyloxy, alkoxycarboxy, or aryloxycarboxy attached to a carbon atom that is three atoms from an oxygen attached to the phosphorus; or

together V and W are connected via a chain of 3 carbon atoms to form part of a cyclic group substituted with hydroxy, acyloxy, alkoxycarboxy, alkylthiocarboxy, hydroxymethyl, or aryloxycarboxy attached to a carbon atom that is three atoms from an oxygen attached to the phosphorus;

Z is selected from the group consisting of CH_2OH, CH_2OCOR^3, $CH_2OC(O)SR^3$, $CH_2OCO_2R^3$, SR^3, $S(O)R^3$, CH_2N_3, $CH_2NR^2_2$, CH_2Ar, $CH(Ar)OH$, $CH(CH{=}CR^2R^2)OH$, $CH(C{\equiv}CR^2)OH$, and R^2;

~~with the provisos that:~~

~~a) V, Z, W are not all H; and~~

~~b) when Z is R^2, then at least one of V and W is not H or R^9;~~

~~R^2 is selected from the group consisting of R^3 and H;~~

~~R^3 is selected from the group consisting of alkyl, aryl, alicyclic, heteroalicyclic, and aralkyl;~~

~~R^4 is independently selected from the group consisting of H, lower alkyl, lower alicyclic, lower heteroalicyclic, lower aralkyl, and lower aryl;~~

~~R^5 is selected from the group consisting of lower alkyl, lower aryl, lower aralkyl, lower alicyclic, and lower heteroalicyclic;~~

~~R^6 is independently selected from the group consisting of H, and lower alkyl;~~

~~R^7 is independently selected from the group consisting of H, lower alkyl, lower alicyclic, lower heteroalicyclic, lower aralkyl, lower aryl, and $C(O)R^{10}$;~~

~~R^8 is independently selected from the group consisting of H, lower alkyl, lower aralkyl, lower aryl, lower alicyclic, $C(O)R^{10}$, or together said R^8 groups form a bidendate alkylene;~~

~~R^9 is selected from the group consisting of alkyl, aralkyl, alicyclic, and heteroalicyclic;~~

~~R^{10} is selected from the group consisting of H, lower alkyl, NH_2, lower aryl, and lower perhaloalkyl;~~

~~R^{11} is selected from the group consisting of alkyl, aryl, OH, NH_2 and OR^3;~~ and

~~pharmaceutically acceptable prodrugs and salts thereof.~~